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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Paquet et al.
Appl. No. : 10/527,688
Filed : 3/11/2005
Title : FRANCIS RUNNER AND HYDRAULIC MACHINE COMPRISING
ONE SUCH RUNNER

Grp./A.U. : 3745
Examiner :

Docket No.: 14995NP

Honorable Commissioner of Patents
Alexandria, VA 22313-1450

TRANSLATED INTERNATIONAL PRELIMINARY EXAM REPORT

Sir:

Submitted with this correspondence is a copy of the International Preliminary Examination Report that has been translated into English. It would be appreciated if this were made of record with respect to the above referenced application.

Respectfully submitted,

DOWELL & DOWELL, P.C.

By

Ralph A. Dowell, Reg. No. 26,868

Date: December 7, 2005

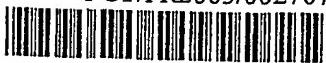
DOWELL & DOWELL, P.C.
Suite 406, 2111 Eisenhower Avenue
Alexandria, VA 22314
Telephone - 703 415-2555
Facsimile - 703 415-2559
E-mail - dowell@dowellpc.com

Translation

PATENT COOPERATION TREATY

PCT/FR2003/002707

PCT



INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference BET 03L0141	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/FR2003/002707	International filing date (day/month/year) 12 septembre 2003 (12.09.2003)	Priority date (day/month/year) 13 septembre 2002 (13.09.2002)
International Patent Classification (IPC) or national classification and IPC F03B 3/02		
Applicant ALSTOM TECHNOLOGY LTD.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 4 sheets, including this cover sheet.

This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 1 sheets.

3. This report contains indications relating to the following items:

- I Basis of the report
- II Priority
- III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV Lack of unity of invention
- V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI Certain documents cited
- VII Certain defects in the international application
- VIII Certain observations on the international application

Date of submission of the demand 29 mars 2004 (29.03.2004)	Date of completion of this report 15 October 2004 (15.10.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/FR2003/002707

I. Basis of the report

1. With regard to the elements of the international application:*

- the international application as originally filed
 the description:

pages _____ 1-8 _____, as originally filed
 pages _____ , filed with the demand
 pages _____ , filed with the letter of _____

- the claims:

pages _____ 1-5 _____, as originally filed
 pages _____ , as amended (together with any statement under Article 19
 pages _____ , filed with the demand
 pages _____ 6-9 _____, filed with the letter of 04 October 2004 (04.10.2004)

- the drawings:

pages _____ 1/6-6/6 _____, as originally filed
 pages _____ , filed with the demand
 pages _____ , filed with the letter of _____

- the sequence listing part of the description:

pages _____ , as originally filed
 pages _____ , filed with the demand
 pages _____ , filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item. These elements were available or furnished to this Authority in the following language _____ which is:

- the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
 the language of publication of the international application (under Rule 48.3(b)).
 the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
 filed together with the international application in computer readable form.
 furnished subsequently to this Authority in written form.
 furnished subsequently to this Authority in computer readable form.
 The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
 The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description, pages _____
 the claims, Nos. _____
 the drawings, sheets/fig. _____

5. This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1 - 9	YES
	Claims		NO
Inventive step (IS)	Claims	1 - 9	YES
	Claims		NO
Industrial applicability (IA)	Claims	1 - 9	YES
	Claims		NO

2. Citations and explanations

The most relevant prior art is represented by the following document: BREKKE H: "WHY NOT MAKE THE TURBINES CAVITATION FREE?", PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON HYDROPOWER-WATERPOWER, XX, XX, Vol. 3, No. 3, part 3, 5 August 1997 (1997-05-05), pages 1925-1934, XP008017906 (D1).

The Francis turbine having a ceiling, a belt and blades which define intermediate liquid flow ducts, as claimed in independent claim 1, differs from the Francis turbine having a ceiling, a belt and blades which define intermediate liquid flow ducts, as described in D1, in that

- the angle between the linear progression speed of one of said blades and the median of said blade at its trailing edge, in the proximity of the point at which the blade is attached to the belt (4), has a value ranging from 20° to 25°.

The problem addressed is that of providing a device that optimises water flow in the flow ducts and at the same time ensures a satisfactory throughput of the machine.

The solution proposed is that of providing a Francis

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turbine having a ceiling, a belt and blades which define intermediate liquid flow ducts, the turbine having the features indicated in the characterising part of claim 1.

Document D1 does not lead to the above-mentioned solution.

Claims 2-9 are dependent on independent claim 1; consequently, they are also novel and inventive.

Contrary to PCT Rule 5.1(a)(ii), the description does not cite documents D1 and D2 (PATENT ABSTRACTS OF JAPAN, Vol. 0102, No. 81 (M-520), 25 September 1986 (1986-09-25) & JP 61 101680 A (TOSHIBA CORP), 20 May 1986 (1986-05-20)) or indicate the relevant prior art disclosed therein.